

REMARKS

Reconsideration of the present application is respectfully requested.

Claim 1 was rejected as anticipated by Japan '923 which discloses the use of a metal plate 2 in a mold to form an incision in a molded tire. Claim 1 now recites that each incision has an annular relationship with a line D extending perpendicular to the point where the incision intersects the outer surface, such angular relationship being greater in an inner tread region than in an outer tread region. (For example, as shown in the attached marked-up copy of the Fig. 2 embodiment, the angle α is larger than the angle α' .) In Japan '923, the incision extends from the outer surface of the tread (formed by the surface 12 of the mold) at an angle greater than zero, and then becomes oriented perpendicular to the tread surface, i.e., at a zero-degree angle. In other words, in Japan '923 the angular relationship in the outer tread region is greater than the angular relationship in the inner tread region, which is the opposite of the presently claimed arrangement.

Furthermore, claim 1 recites that a radially innermost point of each incision is located, relative to a rolling direction of the tire, in front of the point of the incision located on the running surface of the tread when new. There is no indication in Fig. 1 of Japan '923 whether the direction of tire rolling is to the right or to the left. Accordingly, there is no way to tell whether this feature of the claimed invention is disclosed by Japan '923.

Claim 1 has also been rejected as unpatentable over Havens in view of German '697. However, even though German '697 discloses curved incisions 6 in Fig. 8, there is no indication in Fig. 8 of the direction of rotation of the tire, so there is

no way of determining whether the radially inner point of each incision is located in front of the radially outer point of the incision as recited in present claim 1.

Claim 1 was also rejected as obvious over Lurois in view of Europe '104 and optionally German '697. The presently claimed invention is intended to deal with the uneven wear that develops at the leading and trailing portions of incisions provided in steer tires of heavy vehicles. Lurois and Europe '104 are intended to deal with problems that are different from one another. Lurois, in common with the present invention, deals with the uneven wear problem, as indicated in the description of Lurois in the background section of the present application. However, Europe '104 attempts to improve a tire's grip on ice and snow by keeping certain edges of the tread sharp. There is no motivation from Europe '104 which would lead an artisan to provide Lurois's tires with the incisions of Europe '104 because of the different problems being dealt with.

More specifically, Lurois discloses that each incision has an angular relationship with a line extending perpendicular to the point where the respective incision is disposed at the tread's outer surface, and that such angular relationship of each incision is constant, so each incision is linear. During driving conditions, the linear incisions disposed in contact with the road surface are re-oriented to an almost mutually parallel relationship and at a lesser angle of inclination, i.e., toward a zero inclination relative to a perpendicular to the tread. In that regard, see the orientation of the road-contacting incisions for the steering tire shown in Fig. 2A of Lurois wherein each ground contacting incision forms a constant angle with the road surface, which angle is virtually the same for the other road-contacting incisions. The incidence of irregular tread wear is thus reduced. In contrast, EP '104 discloses

non-linear incisions designed in order to cause a specific tire deformation shown in Fig. 5 for the purpose of keeping the edges 1 in a sharp state (see column 4, lines 21-37), not to reduce the incidence of irregular tread wear as in the case of Lurois.

Accordingly, it is not seen how EP '104 could provide any motivation for combining the disclosures of Lurois and EP '104 in the manner suggested in the Official action, and it is submitted that claim 1 and all claims dependent therefrom distinguish patentably over those two patents.

Furthermore, it is not seen that the subject matter of dependent claims 4 and 6 is taught by the cited prior art. The subject matter of claim 6 has been added to that of original claim 1 to form new independent claim 9. Claim 6 was rejected as being obvious over Havens in view of German '697 or as obvious over Lurois in view of Europe '104 and optionally German '697. None of those references even remotely suggests the relationship defined in claim 6. Nor are the values for S_n , S_e , p and H provided in those references to enable anyone to determine whether the relationship exists. In order for claims 4, 6 and 9 to be considered obvious, there must be some motivation to provide the claimed relationships, but no such motivation exists. The comment made in the final sentence on page 5 of the Official Action is not understood. The mere fact that claim 6 does not recite units of measurement does not mean that Havens can be considered to teach the claimed relationship. Nowhere does Havens even remotely suggest such a relationship.

In light of the foregoing, it is submitted that the present application is in
condition for allowance.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: September 2, 2005

By: 

Alan E. Kopecki
Registration No. 25,813

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620